

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims

~~Claim 1.~~ (Currently amended)[[:]] A method for the return of blood from a blood treatment apparatus ~~comprising that includes a blood treatment element, preferably a dialysis apparatus having a dialyzer, two lines with outlets~~ a first line and a second line each having an outlet, a blood pump, a first valve arranged in the first line, a second valve arranged in the second line, and a predilution port ~~for the feeding of~~ configured to feed a substitute fluid, with a substitute supply line ~~which is connected to the predilution port and into which~~ to a substitute pump ~~is interposed, characterized by the following steps~~ the method comprising the steps of:

[[:]] opening the first valve in the first line ~~is opened and closing the second valve arranged in the second line is closed;~~

[[:]] configuring the blood pump ~~is set to for~~ feedthrough operation or it is also running while pressure control operation and operating the substitute pump displaces to displace the blood by means of with transported substitute fluid[[:]][[:]]
~~the blood is further displaced in a volume-controlled manner~~

until ~~it~~ the displaced blood has reached the ~~line outlet of the~~
first line outlet;

[[-]] discontinuing operation of the blood pump ~~is closed or~~
~~stopped~~, closing the first valve, ~~is closed~~ and opening the
second valve ~~is opened~~; and

[[-]] operating the substitute pump ~~displaces to~~ displace the
blood through the ~~released~~ second line and the blood treatment
element ~~by~~ with transported substitute fluid[[;]] and [[-]] ~~the~~
~~blood is further displaced~~ in a volume-controlled manner until ~~it~~
the displaced blood has reached the ~~line outlet of the~~ second
line outlet.

~~Claim 2.~~ (Currently amended)[[:]] A method for the return of
blood from a blood treatment apparatus ~~comprising~~ that includes a
blood treatment element, ~~preferably a dialysis apparatus having a~~
~~dialyzer, two lines with outlets~~ a first line and a second line
each having an outlet, a blood pump, a first valve arranged in
the first line, a second valve arranged in the second line, and a
postdilution port ~~for the feeding of~~ configured to feed a
substitute fluid, with a substitute supply line ~~which is~~
connected to the postdilution port and ~~into which~~ to a
substitute pump ~~is interposed, characterized by the following~~
~~steps~~ the method comprising the steps of:

[[-]] opening the first valve in the first line ~~is opened~~ and closing the second valve arranged in the second line ~~is closed~~;

[[-]] configuring the blood pump ~~is set to~~ for feedthrough operation or ~~it is also running while~~ pressure control operation and operating the substitute pump ~~displaces~~ to displace the blood through the blood treatment element and the first line ~~by means of~~ with transported substitute fluid[[;]][[-]] ~~the blood is further displaced~~ in a volume-controlled manner until ~~it~~ the displaced blood has reached the ~~line outlet of the first line outlet~~;

[[-]] discontinuing operation of the blood pump ~~is closed or stopped~~, closing the first valve, ~~is closed~~ and opening the second valve ~~is opened~~; and

[[-]] operating the substitute pump ~~displaces~~ to displace the blood through the ~~released~~ second line ~~by~~ with transported substitute fluid[[;]][[-]] ~~the blood is further displaced~~ in a volume-controlled manner until ~~it~~ the displaced blood has reached the ~~line outlet of the second line outlet~~.

~~Claim 3.~~ (Currently amended)[[:]] A The method in accordance with claim 1, wherein a ~~highly precisely dispensing membrane pump is used as the substitute pump~~ the step of pumping the substitute fluid includes using a membrane pump.

~~Claim~~ 4_. (Currently amended)[[:]] A The method in accordance with claim 1, wherein the blood treatment element is a dialyzer in hemodiafiltration.

~~Claim~~ 5_. (Currently amended)[[:]] A The method in accordance with claim 1, wherein the blood treatment element is a hemofilter in hemodiafiltration.

~~Claim~~ 6_. (Currently amended)[[:]] A The method in accordance with claim 1, ~~wherein it is detected via detectors that substitute fluid is flowing back instead of blood~~ further comprising a step of detecting the flow of the transported substitute fluid.

~~Claim~~ 7_. (Currently amended)[[:]] A The method in accordance with claim 6, wherein the step of detecting uses optical detectors ~~are~~ used.

~~Claim~~ 8_. (Currently amended)[[:]] A The method in accordance with claim 1, wherein the step of displacing the blood from the blood pump with the substitute fluid includes displacing substantially all of the blood is largely pressed out of the blood pump therefrom.

~~Claim 9.~~ (Currently amended)[[:]] An apparatus for carrying out a method in accordance with claim 1, ~~characterized by~~ comprising a blood treatment element ~~(12)~~, a blood pump ~~(14)~~, a substitute fluid pump ~~(16)~~, a first line ~~(18)~~ as an arterial blood line, a second line ~~(20)~~ as a venous blood line, valves that control flow in the first and second lines, ~~(22, 24)~~ and a control apparatus.

~~Claim 10.~~ (Currently amended)[[:]] ~~An~~ The apparatus in accordance with claim 10, ~~wherein~~ further comprising detectors ~~(26, 28)~~, ~~preferably optical detectors,~~ are arranged in the lines ~~(18, 20)~~ that detect the flow of the substitute fluid.

~~Claim 11.~~ (Currently amended)[[:]] ~~Apparatus~~ The apparatus in accordance with ~~any one of the preceding claims~~ claim 9, wherein each of the pumps ~~(14, 16) are made~~ is configured as double pumps connected in parallel.

12. (New) The method according to claim 1, wherein the predilution port is located downstream of the blood pump and upstream of the blood treatment element.

13. (New) The method according to claim 2, wherein the postdilution port is located downstream of the blood treatment element and upstream of the second valve.

14. (New) The method according to claim 1, wherein the first line and the second line are used both as conduits for transport of blood during operation of the blood treatment element and as conduits for the return of the displaced blood from the blood treatment apparatus.

15. (New) The method according to claim 2, wherein the first line and the second line are used both as conduits for transport of blood during operation of the blood treatment element and as conduits for the return of the displaced blood from the blood treatment apparatus.

16. (New) The apparatus according to claim 10, wherein the detectors are optical detectors.

17. (New) A method of removing blood from a blood treatment apparatus that includes a blood treatment element, a first line and a second line each having an outlet, a blood pump, a first valve disposed in the first line, a second valve disposed in the second line, a substitute pump that feeds a substitute fluid, a predilution port and a postdilution port each configured to distribute the substitute fluid, and a substitute supply line that is connectable to the predilution port and to the postdilution port, the method comprising the steps of:

in a predilution mode, opening the first valve in the first line and closing the second valve in the second line;

configuring the blood pump for feedthrough operation or pressure control operation and operating the substitute pump to feed the substitute fluid through the predilution port to displace the blood with transported substitute fluid in a volume-controlled manner until the displaced blood has reached the first line outlet;

discontinuing operation of the blood pump, closing the first valve, and opening the second valve; and

operating the substitute pump to displace the blood through the second line and the blood treatment element with transported substitute fluid in a volume-controlled manner until the displaced blood has reached the second line outlet; and

in a postdilution mode, opening the first valve in the first line and closing the second valve in the second line;

configuring the blood pump for feedthrough operation or pressure control operation and operating the substitute pump to feed the substitute fluid through the postdilution port to displace the blood through the blood treatment element and the first line with transported substitute fluid in a volume-controlled manner until the displaced blood has reached the first line outlet;

discontinuing operation of the blood pump, closing the first valve, and opening the second valve; and

operating the substitute pump to displace the blood through the second line with transported substitute fluid in a volume-controlled manner until the displaced blood has reached the second line outlet.

18. (New) The method according to claim 17, wherein the step of displacing the blood with transported substitute fluid in a volume-controlled manner includes using a membrane substitute pump.

19. (New) The method according to claim 17, wherein the step of displacing the blood with transported substitute fluid in a volume-controlled manner includes detecting the flow of the transported substitute fluid with an optical detector.

20. (New) The method according to claim 17, wherein the predilution port is located downstream of the blood pump.